Release Notes

Product	Scalar® i40 and Scalar i80
Release Version	i7.3
Firmware Version	190G.GS006
Operating Systems (Remote Web Client)	**Microsoft® Windows®**: Internet Explorer® 7, 8 and 9; Mozilla® Firefox® 3.5.x and 3.6.x and later versions **Solaris™**: Firefox 1.0.6 or later **Linux®**: Firefox 1.0.6 or later
Date	August 2017

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Purpose of this Release

This release contains the fixes described in the Resolved Issues section. These release notes also describe the product's currently known issues for the current release.

Visit http://www.quantum.com for a complete description and information about the Scalar i40 and Scalar i80 tape libraries.

Compatibility Matrix

The following table provides information about drive firmware compatibility with the Scalar i40 and Scalar i80 firmware version 190G.GS006. This information is current as of the publication date of these release notes. For the most up to date information on Quantum Global Services, please visit: www.quantum.com/support.

Firmware Compatibility

Component	Firmware Version
Library Firmware	190G.GS006
Robot Control System (RCS)	
XY controller board	300Q.GR016
Picker controller board	300Q.GG011
Drive Types	
HP LTO-4 Full-height SAS	A65Z
HP LTO-4 Full-height Fibre Channel	H64Z
HP LTO-4 Half-height SAS	U62Z
HP LTO-4 Half-height Fibre Channel	V62Z
HP LTO-5 Half-height SAS	Z6KZ
HP LTO-5 Half-height Fibre Channel	Y6MZ
HP LTO-6 Half-height SAS	35NZ
HP LTO-6 Half-height Fibre Channel	25MZ
IBM LTO-5 Half-height SAS	G361
IBM LTO-5 Half-height Fibre Channel	G361

Component	Firmware Version
IBM LTO-6 Half-height SAS	H4T3
IBM LTO-6 Half-height Fibre Channel	H4T3
IBM LTO-7 Half-height SAS	H5B3
IBM LTO-7 Half-height Fibre Channel	H5B3

Software Compatibility

- To view a list of backup software packages that have been tested for interoperability with the Scalar i40 and Scalar i80, see the Quantum Software Compatibility Guide at http://www.quantum.com/swcompguide.aspx.

- KMIP Key Manager Encryption is supported on SafeNet® KeySecure™ K150 and K460 servers.

  The Scalar i40 and Scalar i80 i7.3 release is necessary for any customer who has upgraded, or is planning to upgrade, to SafeNet 8.6.

- KMIP Key Manager Encryption is supported on all Thales keyAuthority® servers.

Security Scans

Scanning Software	Result
Nessus Vulnerability Scanner 5.2.7 scanned i7.0.1 and newer code	No high or medium warnings were found

General Usage Notes

This section lists guidelines for general system usage.

Description	Guideline
Scalar i40/i80 Online Help, accessed from the Remote Web Client, is not supported by Firefox 41 or higher. All other Remote Web Client functions are supported by Firefox 41 and higher.	Use the supported operating systems listed in Operating Systems (Remote Web Client) on page 1, with the exception of Firefox 41 or higher.
If downgrading firmware, downgrade support includes the present release minus two major versions.	For example, if your library is at version i4.x, firmware downgrades are supported to version i2.x and version i3.x.

Description	Guideline
Clear Web browser cache after upgrading firmware or applying new license keys.	After upgrading library firmware or applying new license keys, do the following to ensure that the new menus are displayed: 1) Delete all Web browser history. 2) Refresh the Web browser. 3) Log back into the library.
NTP does not work on a Red Hat Linux server using IPv6.	This is an issue with Red Hat Linux, not library firmware. If you are using Red Hat Linux, you cannot use NTP with IPv6.
Using two NTP servers can cause incorrect time calculations.	The current software supports using one, two, or three NTP servers. The recommendation is to use one or three NTP servers (but not two).
On the Scalar i80, when a second power supply is inserted while the library is powered on, diagnostic ticket **DT002 – PS Failure** is immediately produced for that power supply before the user has a chance to plug the power supply in to an AC outlet. This can cause a false diagnostic ticket for an inserted power supply before applying power.	Close diagnostic ticket DT002 and monitor for recurrence. If the ticket recurs, contact Quantum Support.
The library automatically turns partitions offline when performing certain operations, and turns them back online again when the operation successfully completes. However, if the operation fails, the partitions will remain offline.	Evaluate the issue to determine if and when the partitions need to be brought online again. When you are ready to bring the partitions back online, you must do so manually (from the Web client, select **Operations > Partitions > Change Mode**).
Avoid manually generating SKM encryption keys on more than five libraries simultaneously as the key generation process is resource-intensive on the server.	Generating keys manually on more than five libraries at once could result in a failure to complete the key generation operation, or interfere with key retrieval operations. If a failure does occur during key generation, wait 10 minutes, then try to start it again. The key generation process will resume from where the error was encountered.
Library initialization can take approximately 9 to 23 minutes for an i40, or 14 to 40 minutes for an i80. Do not interrupt the library during initialization.	Do not interrupt the library during initialization.
The Remote Web client is not supported by Internet Explorer 10.	Only use the supported browsers listed in [Operating Systems (Remote Web Client)](#) on page 1.
In order to perform current or selective encryption key export operations in Scalar Key Management (SKM) server environments, tape cartridge barcode label information is used to associate and locate encryption keys for respective media. If the barcode label on encrypted media is changed, the SKM servers may not be able to locate the respective encryption key unless the SKM server database is updated with the new barcode label information.	If the barcode on any encrypted media is changed and data has not been rewritten with a new encryption key associated with the new barcode label, contact Service to correct barcode label associations in the SKM server data bases before performing a current or selective encryption key export operation.

Description	Guideline
Certain operations may take longer than expected and may cause the browser to hang.	• If an operation seems to be taking a very long time, close the browser window and open a new browser window. • Adjust the HTTP response timeout setting in your browser, if available.
Release i6 is a baseline release, meaning that all libraries must be upgraded to 160G before they can be upgraded to any later firmware.	Upgrade to 160G before upgrading to any later library firmware version.
IBM drives must not be added to the library until firmware version i7.2 (180G) is installed.	You must install library firmware version 170G or higher before installing an IBM drive. After installing the drive, you must update the tape drive firmware using the *Scalar i40 and i80 Drive Firmware Upgrade Instructions*. See http://www.quantum.com/serviceandsupport/softwareanddocumentationdownloads/si40/index.aspx?whattab=Fifth. (Click the **Documentation** tab and scroll down to the **Product Update** section.) • Click the **Firmware** tab to access the tape drive firmware file. • Click the **Documentation** tab to access the *Scalar i40 and i80 Drive Firmware Upgrade Instructions*. If the IBM drive is installed before the 170G library firmware is installed, remove the IBM drive, reboot the library, and install the 170G library firmware before re-installing the IBM drive. Be sure to follow the instructions provided.
When updating library firmware, all user-installed drive firmware images are removed.	After the library firmware is updated, you must update all tape drive firmware using the *Scalar i40 and i80 Drive Firmware Upgrade Instructions*. See http://www.quantum.com/serviceandsupport/softwareanddocumentationdownloads/si40/index.aspx?whattab=Fifth. (Click the **Documentation** tab and scroll down to the **Product Update** section.) • Click the **Firmware** tab to access the tape drive firmware file. • Click the **Documentation** tab to access the *Scalar i40 and i80 Drive Firmware Upgrade Instructions*.

Resolved Issues

This release of the Scalar i40 and Scalar i80 firmware contains the following resolved issues:

Change Request Number	SR Number	Description
52207		Long Erasing media via Arcserve could cause a drive SCSI bus reset when used with the Emulex LPE16002-m6 16gb HBA card.
52339		Moving media using Symantec HCT could cause failure errors.
52611		When using a SUSE 11 host, changing the control path drive caused SUSE to generate a control path error.
52686		In AIX, changing the drive topology between Point-to-Point and Loop could cause the device path to Tivoli to be lost.
58610	SR3626862	Nexpose reported a Click Jacking security risk.
59383		Tape Alert 49 was reported for partitioned tapes when a write at BOT in partition 0 occurs, even when the controlling host (such as Scalar LTFS) requests the tape to be formatted for multiple partitions.
61919		The timezone database was updated to a new version (version g), which supports Turkey no longer using daylight saving time.
61985		A library failed during a PCI network scan because it was running an old version of Dropbear. An updated version is now included to prevent ssh vulnerabilities.
62368		Corrected an issue that caused email addresses of certain lengths to cause email send failures.
62462		Autocomplete is now disabled during password entry.
62678		Lighttpd was upgraded to 1.4.36 prevent a log injection vulnerability in mod_auth (CVE-2015-3200)
62717		Changes were made to cipher suite scanning to protect against vulnerabilities such as SWEET32.
62772		Openssl was updated to 1.0.2 to incorporate security fixes.
62969		Corrected an issue in which the library hangs after constant snmp and wget, requiring the library to be power cycled.
64178		Support for Tape Alert 58 on IBM LTO5, 6 and 7 was implemented.

Known Issues

This release of the Scalar i40 and Scalar i80 firmware contains the following known issues:

Change Request Number	Service Request number	Description	Workaround
23978		When manual cartridge assignment is enabled (the default setting), a tape cartridge that is placed into an I/E station slot when the library is turned off is left "stranded" when the library is turned on. The tape is shown as being present in the I/E station slot, but you cannot import or move it, and the **Assign I/E** screen does not appear on the operator panel to help you assign the cartridge. The library configuration report indicates that the slot is "Unavailable."	Unlock and open the I/E station. Remove the tape cartridge from its slot and place it in a different I/E station slot. Close the I/E station. The cartridge is now available for assignment, and the **Assign I/E** screen appears on the operator panel.
28530		With Internet Explorer 6 and 7, occasionally Web client menus do not display after logging in. This is very intermittent and seems to happen only after clearing the browser cache and/or rebooting the library.	Refresh the browser.
32761	SR1240150	After clearing the cache and refreshing browser, a user still cannot log in using Internet Explorer to access the Web client.	Log in to the Web client using Firefox.
32815		IVT Drive Test fails when the host sends commands to a drive under IVT test.	Do not initiate host commands to drives while performing an IVT drive test.
32897		Issue with Brocade FC switch - data is written to library slowly at 5MB~10MB/sec.	Configure connection as point-to-point.
33083		Media Security alerts are not posted when removing a tape drive or magazine containing media.	No workaround. Media Security does not post alerts on removed components.
51095	SR3363144	Changing the IP address of the secondary SKM server may generate Diagnostic Tickets that the IP address is no longer being used.	• Ignore the Diagnostic Tickets. • Reboot the library.

Change Request Number	Service Request number	Description	Workaround
51973, 52599		When using a Firefox browser, some operations may time out.	In the Firefox browser settings, set the Timeout period to 20 minutes (1200 seconds) or longer: **1** In the Location bar, type **about:config** and press **Enter**. The about:config warning page "This might void your warranty!" might appear. **2** Click **I'll be careful, I promise!**, to continue to the about:config page. **3** Modify the parameter `network.http.response.timeout` to 1200. (The default value is 115.) **4** Restart Firefox.
52319		Control Path Failover (CPF) configurations are supported by HP drives only.	Configure only HP drives for CPF. IBM drives will support CPF configurations in a later release.
58832		Although Scalar i40/i80 supports SKM keys, it does not support Q-EKM to SKM key migration. In scenarios where you might use the Q-EKM to SKM key migration feature for your Scalar i500 or i6k, you will not be able to use the migrated keys on your Scalar i40/i80.	Use SKM keys with your Scalar i40 or Scalar i80.
58907		Scalar i40/i80 does not support barcode labels that contain checksum characters.	
58981		Nessus security scans can disconnect your library from the network.	Reboot your library to reconnect your library to the network.

Documentation

The following documents are currently available for the Scalar i40 and Scalar i80.

Document Number	Document Title
6-66545	*Scalar i40 and Scalar i80 User's Guide*
6-66546	*Scalar i40 and Scalar i80 Quick Start Guide*

Document Number	Document Title
6-00618	*System, Safety, and Regulatory Information*
6-66773	*Scalar i40 and Scalar i80 Basic SNMP Reference Guide*
6-00423	*Quantum Intelligent Libraries SCSI Reference Guide*
6-01317	*Quantum Intelligent Libraries SMI-S Reference Guide*

Contacting Quantum

More information about this product is available on the Service and Support website at http://www.quantum.com/ServiceandSupport/Index.aspx. The Service and Support Website contains a collection of information, including answers to frequently asked questions (FAQs). You can also access software, firmware, and drivers through this site.

For further assistance, or if training is desired, contact the Quantum Customer Support Center:

United States	1-800-284-5101 (toll free)
	+1-720-249-5700
EMEA	+800-7826-8888 (toll free)
	+49-6131-3241-1164
APAC	+800-7826-8887 (toll free)
	+603-7953-3010

For worldwide support:

http://www.quantum.com/ServiceandSupport/Index.aspx